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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,458	10/17/2003	Craig S. Allen	51798	3036
21874	7590	09/14/2005	EXAMINER	
EDWARDS & ANGELL, LLP			PHAN, THIEM D	
P.O. BOX 55874			ART UNIT	
BOSTON, MA 02205			PAPER NUMBER	
			3729	

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/688,458

Applicant(s)

ALLEN ET AL.

Examiner

Tim Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 8 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) 5, 7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The amendment filed on 7/20/05 has been fully considered and made of record.

#### ***Election/Restrictions***

2. Applicants' election with traverse of Group I-A (Claims 1-4), filed on 7/20/05, is acknowledged. The traversal is on the grounds that the Group I-A (Claims 1-4) where Claim 1 is currently amended and the Group I-B (Claims 5-8) where Claim 5 is currently amended, are not patentable one over the other and the restriction is improper under MPEP 803 and no burden is placed to search for prior art in different sub-classes.

This is not found persuasive because the examiner has established a prima facie case having shown in the Office Action filed on 4/20/05, under MPEP 806.05(c) that the invention of Group I-A has a separate classification (class 29, subcl. 620) from the invention of Group I-B (class 29, subcl. 610.1). These inventions of Groups I-A and I-B each have a separate status in the art and clearly have a separate field of search which would be non-coextensive.

Moreover, Applicants urge that there is no search distinction but significant overlap between subclasses 620 and 610.1 for the two restricted groups (Remarks, page 6, 1<sup>st</sup> paragraph). This is not persuasive as applicants appear to stretch the idea of eliminating classification and any related but distinct inventions, cited under MPEP 808.02(A).

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In accordance with MPEP § 803, the examiner has demonstrated that the inventions of Groups I-A and I-B are each independent or distinct as claimed (filed in 4/20/05)) and a serious burden would be placed on the examiner as discussed above.

Accordingly, Claims 5, 7 and 8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim.

The Restriction filed on 4/20/05 is hereby **made Final**.

Applicants are required to cancel these nonelected claims (5, 7 & 8) or take other appropriate action.

An Office Action on the merits of Claims 1-4 and 20-22 now follows.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Fjelstad (US 6,821,821 B2).

**As applied to claim 1**, Fjelstad teaches a method of manufacturing resistors comprising:

- a) providing a substrate or polymer layer (Fig. 5A, 200; col. 4, lines 42-45) having a structured surface;
- b) disposing a layer of resistive material or chip resistor (Fig. 5D, 220) on the structured surface of the substrate;
- c) disposing a layer of conductive material (Fig. 5E, end of 230) on the resistive material layer; and
- d) separating the substrate (Fig. 5A, 200) from the resistive material layer (Fig. 5D, 220) to provide a resistive material device comprising a structured resistive material (Fig. 5G and 5H).

5. **As applied to claim 3**, Fjelstad teaches that the structure surface is a substantially corrugated or marked with uneven surface (Fig. 5b, 203).

**As applied to claims 20 and 21**, Fjelstad teaches a method of manufacturing of manufacturing resistors, which reads on applicants' claimed invention including a substantially corrugated or marked with uneven surface (Fig. 5b, 203). The limitations of the claims "... substantially rectangular in cross-section structures ... discontinuous structures." (Claim 20) and "... structures ... of 0.1 to 5000 microns." (Claim 21) are considered to be of a claimed article

wherein the process of manufacturing of manufacturing resistors operates so this manner of operation does not distinguish over the process of Fjelstad, and Fjelstad at a minimum suggests the claimed method invention.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 4 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fjelstad.

**As applied to claim 2**, Fjelstad teaches a method of manufacturing of manufacturing resistors, which reads on applicants' claimed invention including a separating layer with some polymer and conductive materials (Col. 4, lines 40-45), except for having the separating layer structure made of a release layer on the substrate layer.

It is mere matter of design choice to have having the separating layer structure made of release layer on the substrate layer and it appears that the invention would perform equally well with the separating layer reinforced with metallic and resin materials, which is removed from the resistor later on.

**As applied to claim 4**, Fjelstad teaches a method of manufacturing of manufacturing resistors, which reads on applicants' claimed invention, except for having the resistive material layer in a variety of thickness.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the resistive material layer in a variety of thickness in order to have different resistors, since it is known in the art that the invention is to manufacture many resistors (Fig. 1G-1, 150 or Fig. 11E, 1150A & 1150B).

**As applied to claim 22**, Fjelstad teaches a method of manufacturing of manufacturing resistors, which reads on applicants' claimed invention, except for describing different resistivity at two right angle directional readings.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that there are different resistivity at two right angle directional readings, since it is known in the art that there are many different shapes of chip resistors (Fig. 2F).

8. Claims 1-4 and 20-22 are further rejected under 35 U.S.C. 103(a) as being unpatentable over the Fjelstad in view of Sato et al (US 5,384,076) or vice versa.

**As applied to claim 1**, Fjelstad teaches a method of manufacturing resistors comprising:

- a) providing a substrate or polymer layer (Fig. 1A, 101; col. 4, lines 42-45) having a structured surface;

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- b) disposing a layer of resistive material or chip resistor (Fig. 1C, 121) on the structured surface of the substrate; and
- d) separating the substrate (Fig. 1A, 101) from the resistive material layer (Fig. 1C, 121) to provide a structured resistive material to provide a resistive material device (Fig. 1G-1, 150).

Sato et al teach a process of forming resistive film-composition with a step of disposing a layer of conductive material or gold film (Fig. 3, 3 & 4; col. 6, lines 45-52) on the resistive material layer (Fig. 3, 8) in order to form solid, common and counter electrodes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the two teachings by applying the conductive layer, as taught by Sato et al to the method of manufacturing resistors of Fjelstad in order to form solid, common and counter electrodes.

**As applied to claims 2-4 and 20-22, these claims are wordily rejected as in paragraphs 5 and 7 above under 35 USC 103, which are incorporated herein and made a part hereof.**

### ***Response to Arguments***

9. Applicants' arguments filed on 7/20/05 have been fully considered but they are not persuasive for the following reasons:



Applicants urge that the prior art, Fjelstad, does not disclose a structured resistive material (Remarks, page 6; Claim 1) being separated from the substrate. Fjelstad does indeed teach the separation of the substrate (Fig. 1E & 1F) to form structured resistive material (Abstract).

Applicants' citations "This patent (Fjelstad) fails to disclose or suggest depositing a conductive material on a structured resistive material layer ..." (Claim 1, step c; Remarks, page 7, 2nd paragraph) were traversed since Fjelstad teaches a conductive material (Fig. 1D-1, 130) being deposited on the resistive material (Fig. 1C, 121).

Applicants assert that Fjelstad does not teach a corrugated structural surface (Claim 3; Remarks, page 7, 3<sup>rd</sup> paragraph). Fjelstad does indeed teach a corrugated structural surface (Fig. 5B, 203).

Applicants' arguments about prior art, Sato et al, (Remarks, page 7, last paragraph) fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

It appears that Applicants fail to recognize the scope of the claims when judged in view of Fjelstad and Sato et al. (MPEP 2111 and *In re Geuns*, 26 USPQ 2<sup>nd</sup> 1057 (Fed. Cir. 1993)).

*Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Applicants' amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 571-272-4568. The examiner can normally be reached on M - F, 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's


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supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tim Phan  
Examiner  
Art Unit 3729

tp  
September 8, 2005



**A. DEXTER TUGBANG**  
**PRIMARY EXAMINER**